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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kenji Kawaguchi

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EXAMINER

FAROUL, FARAH

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/678,105	Applicant(s) KAWAGUCHI ET AL.	
	Examiner FARAH FAROUL	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47, 49, 51-55, 57 and 59-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47, 49, 51-55, 57 and 59-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 13, 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-47, 49, 51-55, 57, and 58-64 have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. The disclosure is objected to because of the following informalities:

The word "**massages**" is found all throughout the specification. The word is to be correctly spelled as "**messages**".

From page 9, line 10 to page, 10, line of the disclosure, the term "**MBSM**" needs to be corrected to "**MBMS**".

Appropriate correction is required.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-47, 49, 51-55, 57 and 59-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (US 2006/0166653 A1) in view of Bjelland et al. (US 2002/0089949 A1).

For claims 1, 9, 15, 21, and 54, Xu discloses a mobile communication system including a core network having a node with a packet switching function for packet data communication, a radio network controller, and a mobile terminal, wherein a connection is set on an interface between the radio network controller and the core network (Figure

1 depicts a core network (20) having an SGSN (123) node connected to a radio network controller (112) and a mobile station),

The mobile communication system comprising: connection setting means for setting the connection for multicast data communication separately from the connection for the packet data communication (Figure 1, elements 123 and 150 shows separate connections for packet switching and multicast service and paragraph 37, line 1 to paragraph 38, line 11)

The radio network controller initiates the connection for the packet data communication and the core network includes the connection for the broadcast or multicast service (paragraphs 42 and 46)

For claims 1, 9, 15, 21 and 54, Xu discloses the entire claimed invention except for the signaling connection is an SCCP signaling connection.

Bjelland, from the same or similar field of endeavor, teaches transmitting messages using SCCP signaling protocol in a mobile communication system (see Fig 1 and paragraph 9).

Thus, it would have been obvious to one of ordinary skill in the art to combine the data communication method of Bjelland with the communication network of Xu at the time of the invention. The data communication method of Bjelland is implemented into the communication network of Xu by using SCCP signaling protocol to send the multicast data. The motivation to combine the data communication method of Bjelland with the communication network of Xu is to notify the receiving node which application should receive the multicast message (Bjelland, paragraph 9).

For claims 27, 33, 39, Xu discloses a core network for packet switching (Figure 1, element 120)

A radio network controller (Fig 1, element 112), which initiates a request for signaling connection to the core network to set on an interface with the core network (paragraph 46)

If a request is related to multimedia broadcast multicast service, the core network initiates a request for signaling connection to the radio network controller, instead of the request being initiated from the radio network controller (paragraph 40)

For claims 45, 53 and 61-64, Xu discloses a mobile terminal (see mobile terminal (MS) in Figure 1)

A core network for packet switching and a radio network controller to control a radio network, wherein a first signaling connection for the mobile terminal and a second signaling connection for a broadcast or multicast service are set on an interface between the core network and the radio network controller (Figure 1, elements 123 and 150 shows separate connections for packet switching and multicast service and paragraph 37, line 1 to paragraph 38, line 11)

The radio network controller initiates the first signaling connection for the mobile station and the core network initiates the second signaling for the broadcast/multicast service and the second signaling connection is separate from the first signaling connection (paragraph 46)

For claim 46, Xu discloses a plurality of mobile terminals including the mobile terminal and the second signaling connection is shared among the plurality of mobile terminals (see plurality of mobile terminals (MS) in Figure 1)

For claims 2, 10, 16, 22, 28, 34, and 40, Xu discloses the connection setting means for setting the connection for the multicast data communication in common to a plurality of mobile terminals that attempt to receive the multicast data communication service (paragraph 34, lines 1-16, paragraph 40, lines 1-10 wherein the connection is set up for plural mobile stations to receive the multicast service).

For claims 3, 11, 17, 23, 29, 35, 41, 51, and 59, Xu discloses the connection means for setting the connection for the multicast data communication in response to a service receiving request from a first mobile terminal attempting to receive the multicast data communication service (paragraph 40, line 1 to paragraph 42, line 13 wherein connection for multicast service is set up after the mobile station sends a "joining" request or service receiving request).

For claims 4, 12, 18, 24, 30, 36, 42, 52 and 60, Xu discloses a first connection releasing means for releasing the connection for the multicast data communication in response to a service leaving request from a last mobile terminal receiving the multicast data communication service (paragraph 61, line 1 to paragraph 64, line 6 wherein multicast connection is released after a "cell leave" message is sent by the mobile station).

For claims 5, 13, 19, 25, 31, 37 and 43, Xu discloses the connection setting means for setting the connection for multicast for the multicast data communication

individually to each of the plurality of the mobile terminals that attempt to receive the multicast data communication service (paragraph 43, line 1 to paragraph 44, line 5 wherein the multicast connection is set up for each mobile station individually).

For claims 6, 14, 20, 26, 32, 38 and 44, Xu discloses a second connection for, in response to the multicast data communication service leaving request from each of the plurality of mobile terminals, releasing the connection for the multicast data communication corresponding to the mobile terminal (paragraph 61, line 1 to paragraph 64, line 6 wherein multicast connection is released after a "cell leave" message is sent by a mobile station from a plurality of mobile stations).

For claim 7, Xu discloses the connection for multicast data communication in the mobile terminal is managed in a PS domain including an area for the packet switching function in the core network (paragraph 34, line 1 to paragraph 36, line 6 and Fig 1, element 150 wherein the broadcast-multicast service center is in the PS domain area).

For claim 8, Xu discloses the connection for the multicast data communication in the mobile terminal is managed in a domain dedicated to the multicast data communication which is different from the PS domain including the area for the packet switching function in the core network (paragraph 34, line 1 to paragraph 36, line 6 and (paragraph 34, line 1 to paragraph 36, line 6 and Fig 1, element 150 wherein the broadcast-multicast service center is separate from the PS domain).

For claim 47 and 55, Xu discloses the second communications service comprises a multimedia broadcast multicast service (MBMS) (figure 1, element 150, wherein the broadcast-multicast service center provides MBMS Service, paragraph 38, lines 1-13).

For claims 49 and 57, Xu discloses the first signaling connection comprises a PS lu connection (paragraph 34, line 1 to paragraph 36, line 6, Figure 1, elements 112 and 123, see connection between SGSN and radio network controller).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lehtovirta et al. (US 2001/0034228 A1), Willars et al. (US 7,072,329 B2) and Willars (US 6,480,476 B1) are cited to show systems pertinent to applicant's invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARAH FAROUL whose telephone number is (571)270-1421. The examiner can normally be reached on Monday - Friday 6:30 AM - 4 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Farah Faroul/
Examiner, Art Unit 2616

/Melvin Marcelo/
Primary Examiner, Art Unit 2616